

WHAT IS CLAIMED IS:

1. A process for identifying clones of a recombinant library produced from DNA derived from at least one uncultivated organism which express a protein with a desired characteristic, comprising:

screening in the liquid phase a library of expression clones randomly produced from DNA of at least one uncultivated organism, said screening being effected on expression products of said clones to thereby identify clones which express a protein with a desired characteristic.

2. The method of claim 1, wherein the DNA is optionally modified or mutagenized prior to formation of the recombinant library.

3. A process of screening clones having DNA recovered from an uncultivated organism for a specified protein characteristic, which process comprises:

screening for a specified protein characteristic in a library of clones prepared by

(i) recovering DNA from a DNA population derived from at least one uncultivated organism; and

(ii) transforming a host cell with the recovered DNA to produce a library of clones which is screened for the specified protein characteristic, wherein the DNA is optionally modified or mutagenized prior to forming a library of clones.